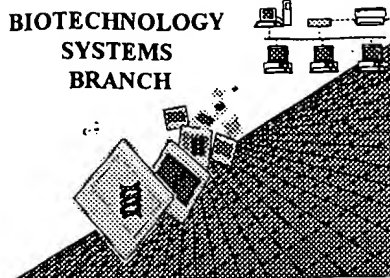


RAW SEQUENCE LISTING **ERROR REPORT**



PK

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/673,918
Source: P4/09
Date Processed by STIC: 9/5/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 09/673,918
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 _____ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.	

PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/673,918

DATE: 09/05/2001

TIME: 14:37:47

Input Set : A:\16430seq.txt

Output Set: N:\CRF3\09052001\I673918.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Xia, Zhi-Qiang
 4 Costa, Michael A
 5 Davin, Laurence B
 6 Lewis, Norman G
 8 <120> TITLE OF INVENTION: Recombinant Secoisolariciresinol Dehydrogenase, and
 9 Methods of Use
 11 <130> FILE REFERENCE: WSUR116430
 13 <140> CURRENT APPLICATION NUMBER: 09/673,918
 14 <141> CURRENT FILING DATE: 2001-05-30
 16 <150> PRIOR APPLICATION NUMBER: PCT/US99/08975
 17 <151> PRIOR FILING DATE: 1999-04-23
 19 <150> PRIOR APPLICATION NUMBER: 60/082,977
 20 <151> PRIOR FILING DATE: 1998-04-24
 22 <160> NUMBER OF SEQ ID NOS: 25
 24 <170> SOFTWARE: PatentIn Ver. 2.0

ERRORED SEQUENCES

395 <210> SEQ ID NO: 6
 396 <211> LENGTH: 273
 397 <212> TYPE: PRT
 398 <213> ORGANISM: Forsythia x intermedia
 400 <400> SEQUENCE: 6
 401 Met Gln Leu Arg Thr Ala Ile Ala Arg Arg Leu Glu Gly Lys Val Ala
 402 1 5 10 15
 404 Leu Ile Thr Gly Gly Ala Ser Gly Val Gly Glu Val Thr Ala Lys Leu
 405 20 25 30
 407 Phe Ser Gln His Gly Ala Lys Val Ala Ile Ala Asp Val Gln Asp Glu
 408 35 40 45
 410 Leu Gly His Ser Val Val Glu Ala Ile Gly Pro Ser Asn Ser Thr Tyr
 411 50 55 60
 413 Ile His Cys Asp Val Thr Asn Glu Asp Gly Val Lys Asn Ala Val Asp
 414 65 70 75 80
 416 Asn Thr Val Ser Thr Tyr Gly Lys Leu Asp Ile Met Phe Asn Asn Ala
 417 85 90 95
 419 Gly Ile Ser Asp Pro Tyr Lys Pro Arg Val Ile Asp Asn Glu Lys Ala
 420 100 105 110
 E--> 422 Asp Phe Glu Arg Val Leu Ser Xaa Asn Xaa Thr Gly Val Phe Leu Phe
 423 115 120 125
 425 Met Lys His Ala Ala Arg Ile Met Val Pro Ala Arg Asn Gly Cys Ile
 426 130 135 140
 428 Ile Ser Thr Ala Ser Leu Ser Ser Thr Met Gly Gly Gly Ser Ser His
 429 145 150 155 160
 431 Ala Tyr Cys Gly Ala Lys His Ala Val Leu Gly Leu Thr Arg Asn Leu
 432 165 170 175
 434 Ala Val Glu Leu Gly Gln Phe Gly Ile Arg Val Asn Cys Leu Ser Pro

see item 9 on
 Error Summary
 sheet

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/673,918

DATE: 09/05/2001

TIME: 14:37:47

Input Set : A:\16430seq.txt

Output Set: N:\CRF3\09052001\I673918.raw

```

435          180          185          190
437 Phe Gly Leu Pro Thr Pro Leu Ala Lys Lys Phe Ser Gly Ile Glu Asn
438          195          200          205
440 Asp Val Asp Phe Ala Asn Ala Ile Glu His Ala Gly Asn Leu Lys Gly
441          210          215          220
443 Thr Lys Leu Arg Ile Glu Asp Val Ala Asn Ala Ala Leu Phe Leu Ala
444 225          230          235          240
446 Ser Asp Glu Ala Gln Tyr Val Ser Gly Gln Asn Leu Phe Ile Asp Gly
447          245          250          255
449 Gly Phe Ser Val Cys Asn Ser Ala Ile Lys Met Phe Gln Tyr Pro Asp
450          260          265          270
452 Ser

```

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/673,918

DATE: 09/05/2001

TIME: 14:37:48

Input Set : A:\16430seq.txt

Output Set: N:\CRF3\09052001\I673918.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:351 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5
L:351 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:352 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5
L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:422 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:6
L:758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:823 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:842 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18